BIRDS Frequently Asked Questions

What is the purpose of BIRDS?

BIRDS is designed to allow a user, without having any significant background in sustainability, to compare the sustainability performance of a whole building as the energy efficiency of the building is increased. The predefined building prototypes allow a user to quickly select the type of building in which they are interested, and compare the sustainability performance as the energy standard edition to which the building is constructed is changed.

What can I do in the BIRDS software?

Currently you can compare the energy, environmental, and economic performance of a **new commercial building** across different locations, study periods, energy efficiency designs, and environmental preferences.

Is BIRDS a finished product?

BIRDS V1 is the initial version of a tool that will be updated annually, both in terms of functionality and ease-of-use. See below for a list of updates that may be included in future versions of BIRDS.

When will a new and improved version of BIRDS be available?

BIRDS V2 will be publically available in late 2015, and will include some of the new features discussed below.

What new data will be included in future versions of BIRDS?

BIRDS V2 will include a sustainability database of **new single-family, detached residential buildings**, which will include the same 228 locations, 10 different house sizes (combination of number of floors and square footage), and 4 different building designs based on the International Energy Conservation Code (IECC).

BIRDS V3 will include a sustainability database that considers the incremental changes in performance of a new house based on the NIST Net Zero Energy Residential Test Facility (NZERTF) located on the NIST campus in Gaithersburg, Maryland. The incremental performance is estimated using every possible

combination of energy efficiency measures between an identical Maryland energy code-compliant design and the NZERTF design, with a total of 864 different building designs.

Future versions of BIRDS will incorporate sustainability for **retrofitting of existing residential and commercial buildings**.

What new functionality is planned on being incorporated into newer versions of BIRDS?

Here is a list of new functionality that is under consideration for addition into BIRDS V2. Please email Joshua Kneifel at joshua.kneifel@nist.gov any suggestions you may have to add to this list for future improvements.

1. Increasing the platforms in which BIRDS will function correctly (currently not running correctly in Internet Explorer).
2. Adding the option to export the selected data into a spreadsheet for easier use of the results.
3. Adding the option to look at alternative metrics, such as Savings to Investment Ratio (SIR), Adjusted Internal Rate of Return (AIRR).
4. Adding the option for stacked bar graphs to show both the total values for a metric as well as the fraction of each value in the subcategories (e.g. life-cycle costs shown as the combination of first costs, energy costs, MRR costs, and residual value).
5. Adding a radial chart option to view the results of multiple metrics at once time (e.g. LCC, energy, and LCA at one time or all 12 environmental categories at one time)

What new aspects to improve look and feel is planned on being incorporated into BIRDS V2 in 2015?

Here is a list of new aspects to improve the usability that are under consideration for addition into BIRDS V2. Suggestions by users will be added to this list for future improvements. Please email Joshua Kneifel at joshua.kneifel@nist.gov any suggestions you may have to add to this list for future improvements.

1. Adding an identifier for the baseline value in each graphical display
2. Label for the top of the bar graph columns